

## CLAIMS

What is claimed is:

- 1 1. A system comprising:  
2 a battery;  
3 a super capacitor (SC) coupled in parallel to the battery;  
4 a computer system coupled to the battery and the SC; and  
5 a current limiter, coupled to the battery, the SC and the computer system,  
6 that prevents excess current from flowing from the battery to the SC.
- 1 2. The system of claim 1 wherein the current limiter prevents excess current  
2 from flowing from the SC to the battery.
- 1 3. The system of claim 1 wherein SC prevents transients from the computer  
2 system from affecting the battery voltage.
- 1 4. The system of claim 3 wherein SC has a capacitance of 20 farad and a  
2 resistance of 5 m .
- 1 5. The system of claim 1 wherein the computer system comprises:  
2 a power delivery subsection; and  
3 a plurality of hardware components coupled to the power delivery  
4 subsection.

1 6. The system of claim 5 wherein the power delivery subsection comprises:  
2 a system voltage regulator;  
3 a chipset voltage regulator; and  
4 a central processing unit (CPU) voltage regulator.

1 7. The system of claim 2 wherein the current limiter comprises:  
2 a first transistor coupled to the battery;  
3 a second transistor coupled to the first transistor; and  
4 a resistor coupled to the second transistor, the SC and the computer  
5 system.

1 8. The system of claim 7 wherein the current limiter further comprises:  
2 a first comparator with inputs coupled across the resistor and an output  
3 coupled to the gate of the second transistor; and  
4 a second comparator with inputs coupled across the resistor and an  
5 output coupled to the gate of the first transistor.

1 9. The system of claim 8 wherein the first comparator deactivates the second  
2 transistor if the voltage across the resistor is greater than a first predetermined  
3 threshold.

1 10. The system of claim 9 wherein the second comparator deactivates the first

2012-09-25 10:00 AM  
Sub A1

2 transistor if the voltage across the resistor is greater than a second predetermined  
3 threshold.

1 11. A system comprising:  
2 a battery;  
3 a super-capacitor (SC) coupled in parallel to the battery;  
4 a power delivery system coupled to the battery and the SC; and  
5 a current limiter, coupled to the battery, the SC and the power delivery  
6 system, that prevents excess current from flowing from the battery to the SC.

1 12. The system of claim 11 wherein the current limiter prevents excess current  
2 from flowing from the SC to the battery.

1 13. The system of claim 11 wherein SC prevents transients from the computer  
2 system from affecting the battery voltage.

1 14. The system of claim 11 wherein the power delivery system comprises:  
2 a first voltage regulator; and  
3 a second voltage regulator.

1 15. A current limiter comprising:  
2 a first transistor coupled to a battery;  
3 a second transistor coupled to the first transistor; and

2017-09-26 10:00 AM  
SUB A1

4 a resistor coupled to the second transistor, and a super-capacitor ( SC);  
5 wherein the current limiter prevents excess current from flowing from the  
6 battery to the SC.

1 16. The current limiter of claim 15 further comprising:  
2 a first comparator with inputs coupled across the resistor and an output  
3 coupled to the gate of the second transistor; and  
4 a second comparator with inputs coupled across the resistor and an  
5 output coupled to the gate of the first transistor.

1 17. The current limiter of claim 16 wherein the first comparator deactivates  
2 the second transistor if the voltage across the resistor is greater than a first  
3 predetermined threshold.

1 18. The current limiter of claim 17 wherein the second comparator deactivates  
2 the first transistor if the voltage across the resistor is greater than a second  
3 predetermined threshold.

*Sub  
11/1  
corral*

1004676-0100